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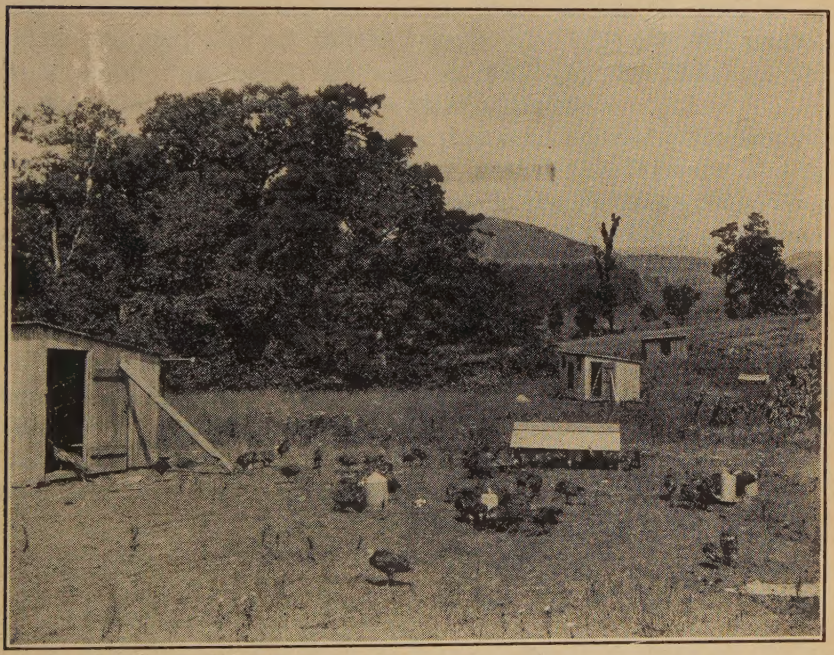
TURKEY RAISING IN NORTH CAROLINA



A PART OF THE RANGE OF 750 YOUNG RANGE TURKEYS IN THE BLUE RIDGE MOUNTAINS, SHOWING MEADOW RANGE, FOREST SHADE, BROODER HOUSES, OUTDOOR MASH HOPPERS, AND WATER FOUNTAIN.—Photo by Wampler.

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Turkey Raising in North Carolina

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Turkey raising in North Carolina assumes an important place in the farm program and especially in the mountain or western section. Reports on the actual number of pounds of turkeys sold by farmers each year are not available but the first shipment out of North Carolina, according to the State Department of Agriculture, was from Randolph county, in 1925, and consisted of 20,000 pounds. In 1926 290,000 pounds were shipped coöperatively and in 1927, for the Thanksgiving market alone, 192,000 pounds were shipped.

One hundred and ninety-nine thousand pounds were shipped from Ashe county in 1927, which netted the farmers of that county more than $60,000. In Asheville the Farmers Federation ships annually about 15,000 pounds. This represents only about one-fourth brought to this market for wholesale trade. In all North Carolina towns and villages turkeys are sold at the door, or curb market, or from farm wagons.

In the past the turkeys have been reared by the chicken hen or turkey hen. In some cases the turkey hen takes her brood to the mountains returning in the fall with the poults fairly well grown. Under these conditions no protection can be given through these growing months and the farmer must trust to luck that foxes or bobcats, storms and other unfavorable factors do not destroy the brood.

HOW TO START

In starting a farm flock of turkeys the first thing to decide is whether chicken hens and turkey hens are to be used for hatching and rearing or whether an incubator and a brooder are to be used. If the operation is large enough, it would be best to hatch the eggs in an incubator, select clean ground and brood artificially. Research work has shown that both chickens and turkeys may be chronic carriers of blackhead, the most common disease destructful to turkeys.

The start may be made by buying the adult breeding birds or by buying a setting or two of eggs and hatching and rearing by chicken hens. Buying baby poults is perhaps the most satisfactory method. Strong poults at hatching sell for $1.50 early in the season to as low as $0.50 later in the season.

HANDLING THE BREEDING STOCK

Of the six varieties of turkeys, the Bronze are most commonly reared. It requires two to three years for the turkey to reach full maturity and weight. The yearling Bronze male should weigh thirty-three pounds and the mature male, called gobbler or old tom, should weigh thirty-six pounds. The pullet should weigh sixteen pounds and the hen twenty pounds.

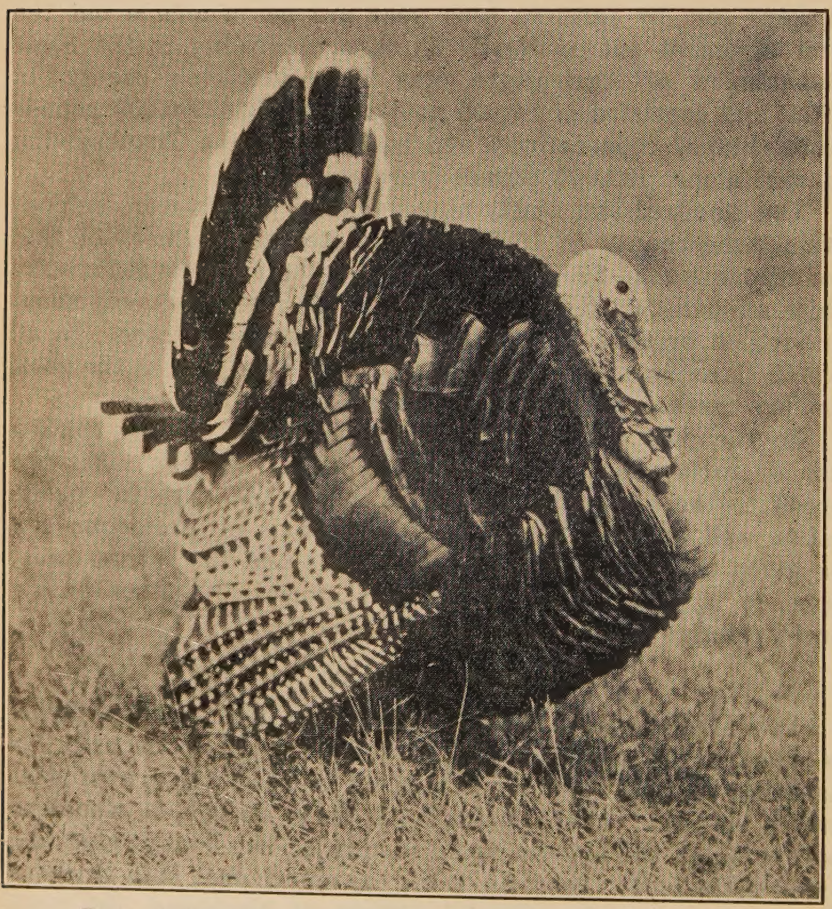

FIG. 1. A BRONZE TURKEY TOM "IN A STRUT." EXCELLENT STANDARD TYPE AND FEATHER MARKINGS.

The Bourbon turkey is preferred by some farmers who claim they do not forage so far away from the home buildings. The Narragansett and White Holland turkeys are also raised.

Breeding turkeys should be selected in November before any of the birds are marketed. Early maturing birds should

be selected. This applies to both physical and sexual maturity. All undersized and slow-maturing birds should be marketed. Mature hens produce larger and better eggs than pullets. Oversized males may be clumsy, may not be a good breeder and may injure the backs of the females. The breeders should be in good physical condition and not too fat. The bird should have a large frame, deep body, with broad, round, full breast. The head should be of good size and the eyes alert and rather bold in expression. They should possess good size bone in the shank. Breeders should be one to three years of age.

The turkey hen begins to lay at about twelve months of age, which is normally about March or April. One mating is sufficient to fertilize the one clutch of eggs. One tom should be mated to not more than fifteen hens. If the toms tend to fight, divide them into two or three groups. This will also take care of selective mating. The birds should be mated one week before saving eggs for hatching. Small eggs produce small poults. Select clean, properly shaped, strong shell textured, three-ounce eggs.

HOUSING THE BREEDING STOCK

If the breeding turkeys are given warm quarters during late fall and winter with feed, similar to hens, consisting of laying mash, grain and green feed with a constant supply of water, they will commence laying earlier in the spring.

The North Carolina type poultry house will be found suitable for breeders. A house 20 ft. by 24 ft. will accommodate thirty birds. Make the front 11ft. high and the rear 7 ft high. The dropping boards and perch poles can be used as with hens, making the perch poles two feet apart and the last perch pole eighteen inches from the back wall. Allow a minimum perch pole space of twelve inches to the bird. Barrels can be used for nests, using excelsior or soft hay for nesting material. Turn the barrel so that the nest will be rather dark. Only a small yard space should be allowed. Birds should be kept indoors on cold days.

The eggs should be collected twice daily and kept in a dry place at a temperature between 40 and 60 degrees. They should be set as fresh as possible. Better to set once a week and never set eggs over three weeks of age.

FEEDING THE BREEDING STOCK

Turkeys can be raised in any climate. While it seems best to pen the breeding birds during the hatching season, yet after the breeding season, turkeys do best if allowed the range of the farm. During a season of abundance the turkeys will have ample green, succulent feed and be able to gather bugs and worms from cotton and tobacco patches, as well as from meadows, corn fields and from fields where small grains have been harvested.

Not more than twenty-five breeders should be run in one yard. These yards should be heavily sodded. In the event permanent sod is impossible, crimson clover or rape and oats may be grown for them. Some turkey raisers temporarily fence off one or two acres from the livestock pasture during the laying season, after which time the fence may be taken down.

The feed for breeding turkeys should be essentially the same as for laying hens. The North Carolina laying mash can be used, which is as follows:

Adult Turkey Mash

Yellow corn meal	25 pounds
Wheat middlings	20 pounds
Heavy oats, pulverized	20 pounds
Fish meal or meat meal (55% protein)	20 pounds
Wheat bran	10 pounds
Steamed bone meal	4 pounds
Iodized table salt	1 pound
Total	100 pounds

Grain Mixture

Yellow corn	40 pounds
Whole heavy oats	30 pounds
Whole wheat	30 pounds
Total	100 pounds

Or

Yellow corn	60 pounds
Whole wheat	40 pounds
Total	100 pounds

For each 100 breeders three 8 ft. mash hoppers should be provided. The mash should be kept before the turkeys at all times. Grain should be given night and morning. Clean water should be kept before the birds at all times. Three

pounds green feed to each twenty-five turkeys should be fed each day unless tender green pasturage is available. The amount of grain and mash consumed will depend on the amount of available forage the birds secure during the day. Seventy-five pounds of feed will produce a twelve- to fourteen-pound turkey.

HATCHING

The hatching should be done from March to May and is done either by the incubator or with the chicken hen or the turkey hen.

By the Incubator: One hundred turkey eggs can be placed in a 150-egg tray designed for hen eggs. The eggs are incubated practically the same as hen eggs. Do not place hen eggs

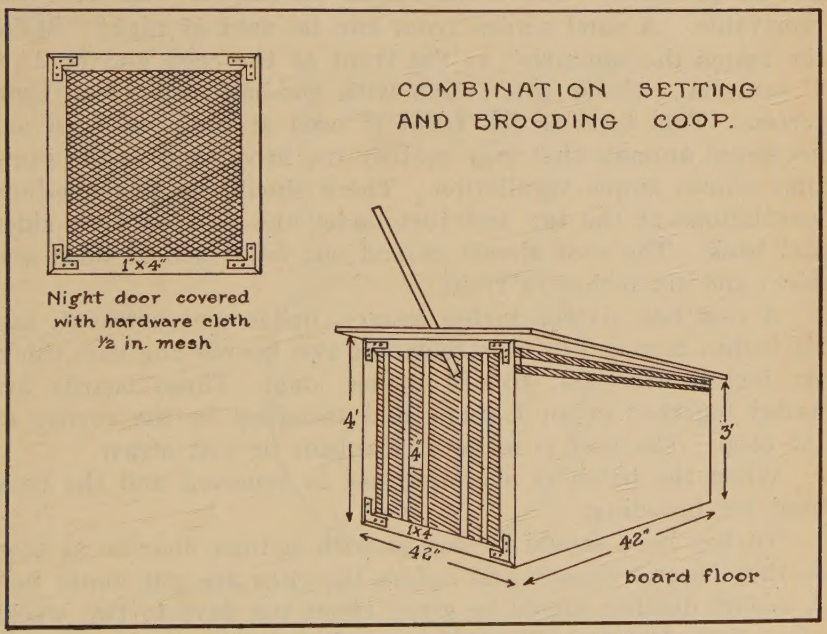

FIG. 2. A COMBINATION TURKEY SETTING AND BROODING COOP.

and turkey eggs in the same tray as it takes one week longer for turkey eggs to hatch than for hen eggs. Temperature should be started at 101½° to 102° and gradually increased to 104° at end of hatch. Turkey eggs should have slightly more moisture than hen eggs. Do not allow the poults to remain in the hatching or nursery trays longer than 36 hours, and place them under hover with litter on the floor.

With the Chicken Hen: Many farmers make a setting under the chicken hen, transferring the poults to the turkey hens when she finished her hatch. The number of eggs a hen will take depends on her size, but usually it is about ten eggs.

With the Turkey Hen: A barrel with nest made of soft hay or excelsior will do. The barrel should be in a quiet place. A turkey hen will take fifteen to seventeen eggs.

A better method is to construct a turkey sitting and brooding coop. Make a shed roof type coop forty-two inches square. This should be three feet high in the rear and four feet high in front. (See Fig. 2.) If rats or other night prowling animals are likely to bother the poults at night, a board floor can be provided. The front should be slatted with one slat removable. A sand screen front can be used at night. Make the frame the same size as the front of the coop and of 1″ x 4″ material. Cover this frame with one-half inch mesh sand screen. This sand screen front is used at night to keep out nocturnal animals that may destroy the brood and at the same time allows ample ventilation. There should be two one-inch ventilations at the top and just under the roof on both sides and back. The roof should extend out four inches, sides and back, and six inches in front.

A nest box sixteen inches square, inside measurement, and six inches deep can be constructed of two boards one inch thick, six inches wide and sixteen inches long. These boards are nailed together in an L-shape and toenailed in the corner of the coop. The nest is made of excelsior or soft straw.

When the hatch is over the nest is removed and the coop used for brooding.

Turkey hens should be dusted with sodium flouride as soon as they become broody and before the eggs are put under her. A second dusting should be given about ten days to two weeks after first dusting. The pinch method is the most practical system of dusting. Never dust hens toward the last of the hatch as the dust of sodium flouride are fatal to newly-hatched poults.

Be sure the sitting hen is not infested with lice or mites. A few drops of Black Leaf 40, nicofume, or other nicotine preparation containing twenty-five to forty per cent free nicotine, dropped around the edge of the nest will be effective in killing lice, mites and other external parasites.

ARTIFICIAL BROODING

The North Carolina type brooder house may be used. This house is 10′ x 12′ and will accommodate 200 poults. Such a house can be constructed on runners and can be moved each year to clean ground. A large range is necessary for growing turkeys. Two hundred young turkeys should be provided a run of four acres. It is best if this area is partly permanent pasture and partly woodland on which chickens or turkeys have not run, or on which poultry house cleanings have not been thrown. If not a permanent pasture, it is a good plan to sow down the fall before in alfalfa or clover. In case this has not been done, the next best procedure is to sow down in the spring in rape with oats or barley. Either oil-burning or coal-burning brooder stoves can be used. Electric brooders may also be used.

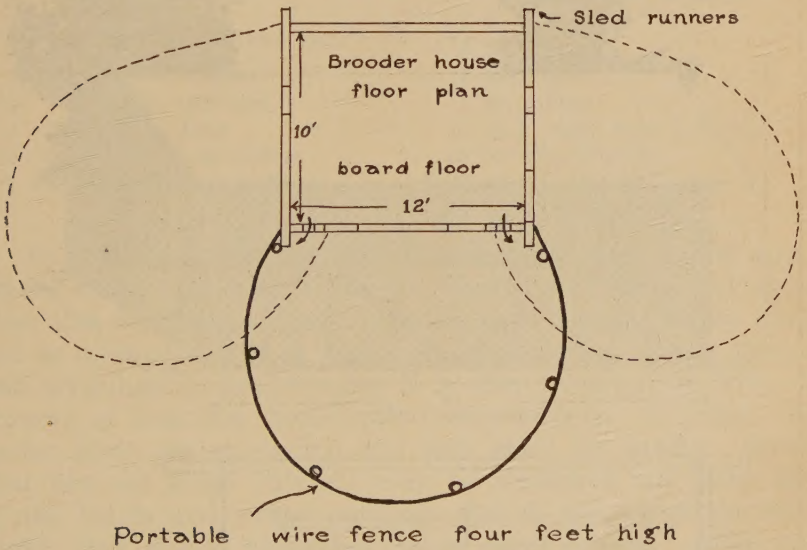

FIG. 3. SHOWING SCHEME FOR HANDLING PORTABLE FENCE.

The brooding operation is carried on similar to that for chicks. Adequate ventilation of the brooder house so that the air is pure at all times is essential. Give direct sunshine when weather is warm enough so that the windows can remain open. Litter for the floor may be shredded stover, short cut straw, or shavings. Clean under brooder every day and the brooder house once a week, and more often if necessary. Operate the brooder a day or two before the poults arrive. Maintain a

temperature of 95° F. at the outer edge of the brooder. Keep poults indoors for a week, after which, if the weather permits, they may be allowed to run out doors. A one-inch mesh poultry netting, four feet high is used to give a small outdoor run. (See Fig. 3.) For a few days after the poults are put under brooder and until they are hover-wise a strip of hardware cloth twelve inches wide with one-half inch meshes may be kept around the hover so that the poults do not wander away from

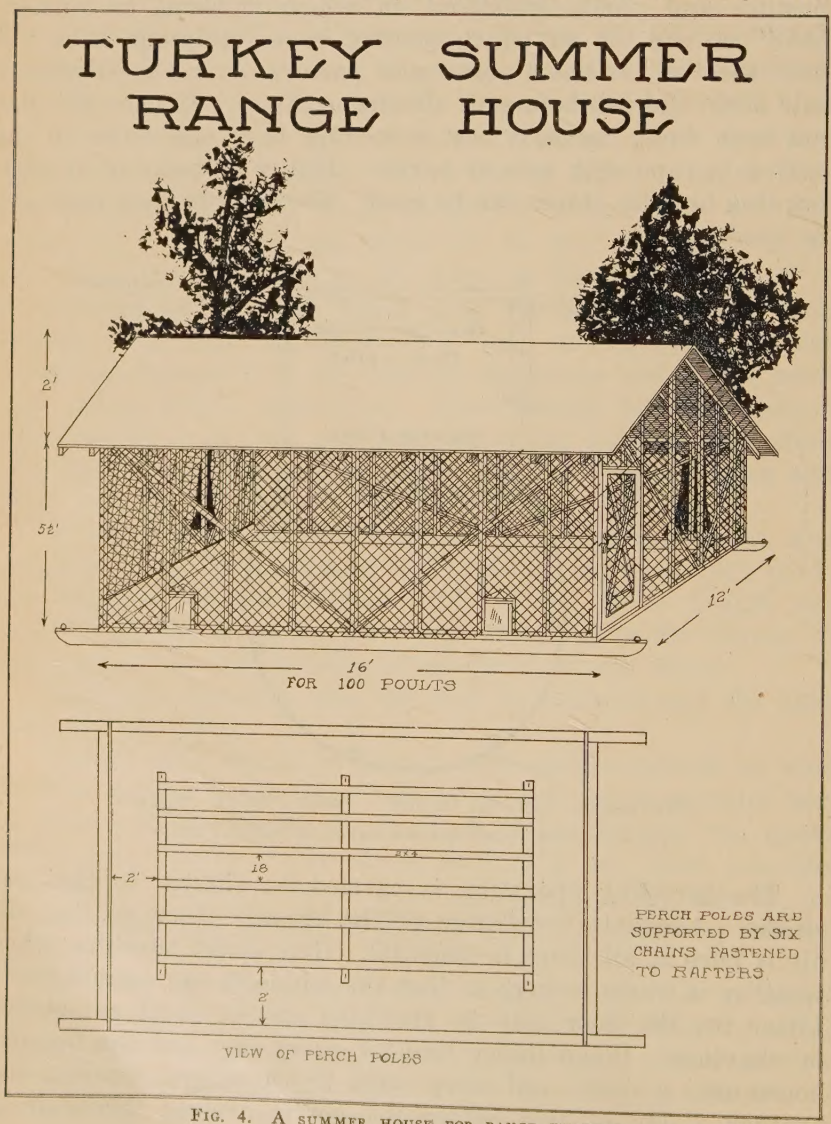

FIG. 4. A SUMMER HOUSE FOR RANGE TURKEYS.

the hover and become chilled, especially at night. This should be located about eighteen inches from the hover.

After ten days the run is shifted to clean ground and again after another ten days. (See Fig. 3.) The ground at the front and two ends can thus be used. At the end of one month the house should be moved to a new area. After the brooder period and warm summer weather arrives, the summer house shown in Fig. 4 may be used. This house is cheaply constructed and can be moved from place to place. There is no floor and the entire interior is occupied with perch poles. Outdoor mash hoppers, grain hoppers and water containers are to be used.

List of Materials for Summer Range House

2 pcs. 4x6x 8—Sled runners	2 pcs. 1x10x12 boards
2 " 4x4x16—Corner studs	4 8" eye bolts and nuts
10 " 2x4x12—Studs	12 pcs. 2x4x12—Perch poles (beveled)
5 " 2x4x16—Studs	6 4" eye bolts
4 " 2x4x16 } Sills and plates	3 pcs. 1x4x12
4 " 2x4x12 }	1 door latch
4 " 2x4x16—Braces	1 pr. hinges
12 " 2x4x16—Rafters	70 ft. 2" mesh wire 6 ft. wide
3 " 2x4x12—Joist	15 lb. wire staples
350 " 2 sq. ft. 1x6 roofers	20 lb. No. 16 nails
1 roll three-ply roll roofing	15 lbs. No. 8 nails

In range management one recommendation is that at eight weeks of age the broods may be banded together. Not more than 250 should be allowed together at this age. Poults must not be allowed to pile at night. Before leaving brooder houses and after heat is discontinued, it is often necessary to wire off corners so that they cannot pile in the corners. In piling, the under birds are smothered and also killed by weight. Many that are not killed outright may be weakened and later die. If the bands are turned outdoors and do not perch the first night, they should be broken up in small groups. After the poults are fifteen weeks old bands may be larger than 250.

For perch poles 2"x4" poles may be used, beveling the edges. The roosts should be three feet high and all on the same level.

FEEDING THE POULTS

Many farmers of the mountain section are very successful in rearing the small broods by giving them their first feed consisting of clabber milk or buttermilk when forty-eight hours old and the following day, or when seventy-two hours old, two

or three light feeds of hard boiled eggs rubbed into a quantity of oat meal or corn bread. One boiled egg is sufficient for twenty-five poults. Feed three and later five times a day on a clean board.

Where larger numbers are reared as with the brooder, the poults may receive clabber milk or buttermilk when forty-eight hours old and two or three light feeds of starting mash when seventy-two hours old. Gradually increase the mash until the poults have it continually before them. On the seventh day commence to feed small amounts of chick scratch, gradually increasing as the poults grow larger.

Keep clean water constantly before the poults and a daily quantity of tender green feed. For green feed alfalfa, clover, rape, onion tops, or cabbage may be used.

Poult Starting Mash

Yellow corn meal	30 pounds
Heavy oats, finely pulverized	20 pounds
Wheat middlings	20 pounds
Meat meal or fish meal (55% protein)	16 pounds
Wheat bran	10 pounds
Steamed bone meal	4 pounds
Iodized table salt	½ pound
Total	100½ pounds

If poults are confined to the house add one pint of a biologically tested cod liver oil to each 100 pounds of mash. Provide one 8 ft. or two 4 ft. hoppers for each 100 poults.

Poult Scratch Feed

Yellow cracked corn	30 pounds
Cracked wheat	20 pounds
Pinhead oats	10 pounds
Total	60 pounds

After the poults are a month old they may be changed to the growing mash and the grain may be a little coarser.

Poult Growing Mash

Yellow corn meal	28 pounds
Heavy oats, pulverized	20 pounds
Wheat middlings	20 pounds
Meat meal or fish meal (55% protein)	17 pounds
Wheat bran	10 pounds
Steamed bone meal	4 pounds
Iodized table salt	1 pound
Total	100 pounds

Growing mash must be kept before the poults at all times. By adequate feeding and care the poults grow off fast, become strong, their natural resistance is increased and the chances of raising ninety-five percent is enhanced. To secure large turkeys for the Thanksgiving and Christmas markets, the poults must be kept growing rapidly during their summer growing period.

Some of the causes of partial failures are over-crowding in the house, too many poults on the space of ground allotted, chilling, over-heating, and spoilt feed. Crooked breasts are largely caused by lack of adequate nutrition and a complete mineral mixture may be used in the place of the bone meal and table salt. Only the best quality feed should be used. If fish meal is used be sure that it is a good quality. If surplus milk can be had it is a good plan to give it to the poults. Both buttermilk and clabber milk are excellent. Cottage cheese is also excellent. Water is not needed if there is enough milk available.

If the poults are given all the milk each day they will drink, the animal feed can be cut down one-half.

After the poults are four months old the growing mash should be replaced with the adult turkey mash.

For best results it is necessary to keep the growing mash before the poults at all times. Give what grain they will clean up, two times a day. We recommend giving all feed, including grain, from troughs to lessen the chances of picking up infection from the ground. If the poults are pushed all summer and fall on full feed, not only will they have better body development, but will be in better state of flesh for finishing for market.

Late summer and fall feeding can include rutabagas, carrots, mangles, cabbage, or pumpkin, all of which they will eat with a relish. However, they do not like one kind of green feed today and another tomorrow. Turkeys are rather particular, with rather delicate appetite and do not like a change of feed often.

Provide four one-gallon drinking fountains to each brood of 200 poults. Glazed crockery fountains are preferable.

Poults for the first few weeks eat heavier on mash, but as they become older they will eat nearly equal of mash and grain. A turkey four months of age will eat two to four ounces of feed per day or sixteen to twenty-five pounds of feed per one

hundred birds per day. When birds are ranged over a large area, when they come in from range in the evening, grain should be given in addition to the mash. This induces more rapid growth and draws all stragglers into the roosting place at night. Grain alone gives a slow growth, expensive in the long run and disappointing in size and quality of turkey. Skim milk and buttermilk are worth three cents a gallon for turkey feeding.

FATTENING FOR MARKET

Fatten about two weeks. In making up the fattening ration corn meal, made of old corn, should be used. Some farmers pen their turkeys rather than put them in fattening batteries. Some times turkeys do not do well in crates, especially if they have been accustomed to large range. This is not so likely to happen if confined to a small enclosure. The idea in fattening birds is to restrict the exercise as much as possible. Many farmers have gotten their turkeys in fair market condition by feeding corn and milk, gradually bringing them up to all they will consume, and feeding for fourteen to twenty days.

Turkey Fattening Feed

Yellow corn meal	50 pounds
Ground wheat	25 pounds
Fine pulverized oats	25 pounds
Total	100 pounds

At feeding time mix one pound of mash with two pounds of buttermilk or clabber milk. Feed three times a day, giving just what the birds will clean up in thirty minutes and then take the troughs away until next feeding time. Milk improves the flavor and therefore the table quality of the turkey. Turkeys, to bring the highest price on the market, must have straight keel bone and absence of other skeletal deformities, plump carcasses, well fleshed in all sections, no scabs or bruises on the carcass, well-bled and dry-picked, or feathers should be left on last joint of wing and hock with all pinfeathers removed.

Most of the turkeys in North Carolina are sold alive. Dressed turkeys may be purchased at butcher shops. Carcasses are usually picked clean of pinfeathers and sold undrawn. Unless the farmer is prepared and is skilled in picking and marketing dressed turkeys it may be best to market them alive.

At killing time the feed should be withheld for eighteen hours before killing to give a chance for the intestinal tract to clean out. A limited amount of water ten hours before killing can be given.

In catching the birds for killing it is best to drive them into a pen or building where they cannot jump, flap and flutter about. A bruised turkey will be docked as well as the bird with broken wings or legs. A stout wire hook made of No. 9 wire makes a good catcher. To prevent bruising in death struggle the wings may be tied down to the sides with cloth folded behind the body, or the bird may be put in a bag allowing head to extend out a hole cut in the bottom of the bag.

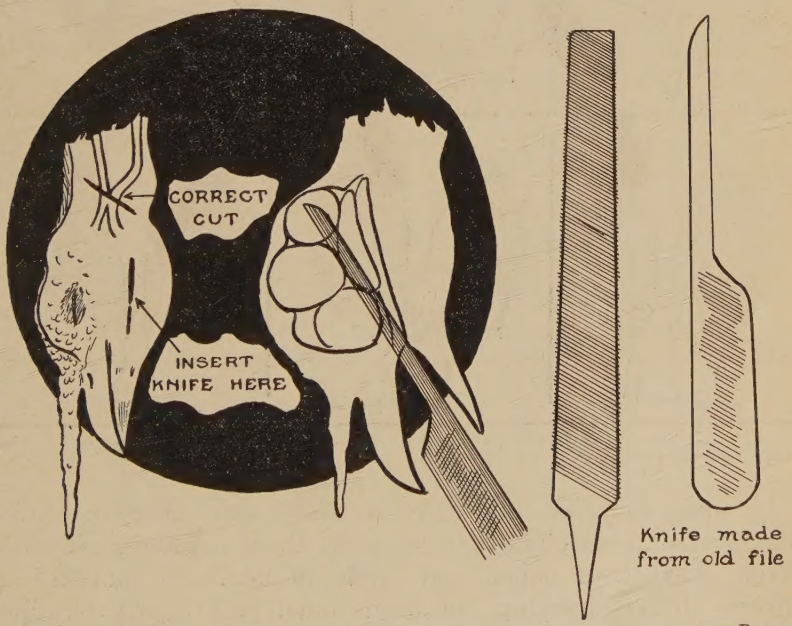

FIG. 5. SHOWING: LEFT—METHOD OF STICKING A TURKEY FOR BLEEDING. RIGHT—METHOD OF MAKING A STICKING KNIFE FROM AN OLD WORN-OUT FILE.

A knife can be made by taking an old worn-out file and grinding down as shown in Fig. 5. An empty coffee can may be made into a blood cup. Make a bail with a hook to fasten into the lower jaw after sticking to catch the blood. The hook is made sharp by filing to a point. Some cement or sealing wax is melted and poured in the bottom of the can to give the cup proper weight.

The jugular vein in the back part of the throat is cut (see pictures), and the knife is then pushed up through the roof of the mouth into the rear part of the brain, twisted to destroy the brain and withdrawn. A proper stick is necessary to loosen the feathers and the birds must be properly bled to prevent "bloodshot" neck. The feathers are now easily removed by twisting.

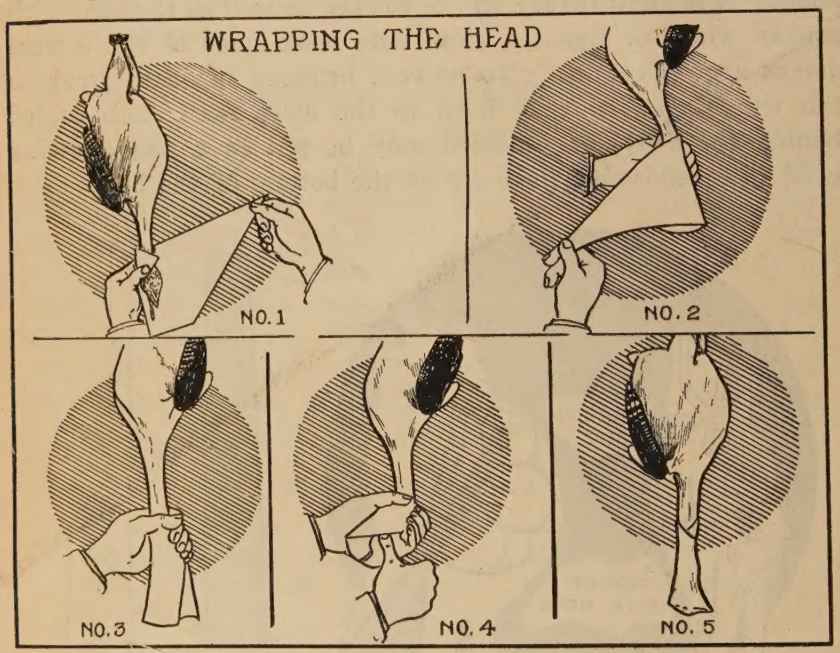

FIG. 6. THE TURKEY'S HEAD SHOULD BE WRAPPED IN OIL PAPER TO PREVENT SOILING OF CARCASSES IN SHIPPING.

In some counties, especially in Ashe and Avery counties, each farmer dresses his turkeys, cools them outdoors, packs in barrels lined with paper and sends to northern markets by express. Before packing, the heads must be properly wrapped in oil paper and content of posterior bowel pressed out to prevent soiling packed carcasses.

Near Thanksgiving time the weather is usually cool enough to remove all body heat through the night. The carcasses must not freeze until the animal heat is out. For cooling hang the turkeys by the feet with head down. Twenty-four hours is ample time for removal of the animal heat. The loss in bleeding and picking is ten to twelve percent on well-fattened birds.